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PRABHAKHER, PRITHAM DAVID	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/644,261	ANSARI ET AL.	
	Examiner	Art Unit	
	PRITHAM PRABHAKHER	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,8,9,11,12,15,17-19,21,23,25-29,31 and 34-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,8,9,11,12,15,17-19,21,23,25-29,31 and 34-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/03/06*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.) ***Response to Arguments***

Applicant's arguments with respect to claims 1-4, 6, 8-9, 11-12, 15, 17-19, 21, 23, 25-29, 31 and 34-46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.) **Claims 11-12, 15, 19, 21 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) and further in view of Monroe (US Patent No.: 7023913B1)**.

*Regarding **Claim 11**, Chen et al. disclose an image capturing system (Figure 2, Column 9, Lines 38 et seq.) comprising:*

an integrated circuit (integrated circuit chip 299 in Figure 2) comprising:

*a first image module (210a is an image sensor, **Figure 2 and Column 5, Lines 1 et seq.**) selectively coupled to a processing engine by way of a selector (processing engine 270 also functions as a selector, Figure 2), the first image module operable to capture first image information (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, **Figure 2***

and Column 5, Lines 1 et seq.), *wherein the first image module does not include a computer readable memory* ***(****There is no memory in the first image sensor);*

a second image module ***(****210b is an image sensor,* ***Figure 2 and Column 5, Lines 1 et seq.)*** *selectively coupled to the processing engine by way of a selector (processing engine 270 also functions as a selector, Figure 2), the second image module operable to capture second image information* ***(****Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270,* ***Figure 2 and Column 5, Lines 1 et seq.)****;*

the selector operable to select between the first image information (desired pixels from first component) and the second image information (desired pixels from second component) in response to the processing engine identifying which of the first image information and the second image information comprises desired information and to selectively deliver the identified desired information to the processing engine ***(****Processing engine 270 functions as a selector. Individual image data are transferred from each image sensor,* ***Column 5, Lines 36-45 of Chen et al.****. During the synching of the image signals to generate a final image, there is a selection process present to select from each of the cameras (components) virtual image pixels that have the least amount of blur (desired information),* ***Column 8, Lines 51-60 of Chen et al.)****; and*

the processing engine operable to perform an image processing function on the selected identified desired information received from the selector and the processing engine further operable to evaluate the first image information and the second image information to identify which of the first image information and the second image

information to identify which of the first image information and the second image information comprises the desired information (Video processor 270 is capable of performing an image processing function on information attained, ***Figure 2 and Column 5, Lines 11-14; Column 8, Lines 1 et seq.*** *The final image is generated from the selected groups of pixels that have the least amount of blur from each of the components/cameras).*

However, Chen et al. do not explicitly disclose that individual pixels of the first image module and the second image module are randomly accessible by the processing engine. Monroe (US Patent No.: 7023913B1) teaches of a digital camera system with a plurality of cameras that is capable of collecting more than one image while performing surveillance and monitoring of an area, ***Column 2, Lines 36-49; Figures 16 and 19 of Monroe****. Monroe discloses a MUX 13 that functions as a pixel selector. Inputs from multiple cameras monitoring an area are coupled through separate motion compressors 12a-12n. The MUX is responsive to select an individual camera signal from the image sensor selector (processor 15 is connected to a network that sends it signals to give to the cameras,* ***Column 14, Lines 63-64 of Monroe****) at the control input (52) to select the pixel streams from the image sensors 10a-10n that only correspond to the pixels that are located within the target area of the object being tracked,* ***Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe****. Pixels outside the view of the object being tracked are avoided as can be seen from* ***Figure 16 of Monroe****). Only the compressed pixels that fall within the target view*

are sent to the MUX 13 and then sent to the processor 15 for processing. Areas and pixels that are not concerned with the target being tracked will not be sent to the processor, ***Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe)****. The images and selected pixels are random since the object being tracked is never at the same location. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to incorporate the function of selecting individual pixels of the first and second image modules and enabling them to be randomly accessible by the processing engine as disclosed Monroe into the teachings of Chen et al., because this significantly reduces the amount of visual data to only the data that's important while preserving quality and increasing processing speed,* ***Column 3, Lines 12-17 and Lines 57-65 of Monroe****.*

With regard to ***Claim 12****, Chen et al. and Monroe disclose the system of claim 11, further comprising:*

a third image module (210c in Figure 2) communicatively coupled to the processing engine (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, ***Figure 2 and Column 5, Lines 1 et seq. of Chen et al.****; and*

an interface operable to facilitate communication to a computing device ***(Figures 1-2 and Column 4, Line 32 to Column 5, Line 58 of Chen et al.)****.*

However Chen et al. and Monroe do not explicitly disclose the communication of the processing engine output to a computing device. Although Monroe discloses

*communication of the processing engine output to a wireless network **(Figure 1 of Monroe)**, the reference is not explicit in teaching that that output is to a computing device. Official notice is taken by the examiner on transferring the processing engine information from the integrated circuit chip disclosed by Chen et al. to an external computing device. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to transfer the output of the processing engine to an external computing system, because this would have enabled the freeing up of space in the integrated circuit and increasing its present memory capacity.*

Regarding claim 12, Official Notice was taken in the most recent Office Action regarding transferring the processing engine information from the integrated circuit chip disclosed by Chen et al. to an external computing device. The Examiner's conclusion of common knowledge in the art is now taken to be admitted prior art because Applicant has failed to traverse the Examiner's assertion of Official Notice in reply to the Office Action in which the common knowledge statement was made. Please see MPEP §2144.03.

*In regard to **Claim 15**, Chen et al. and Monroe disclose the system of claim 11, wherein the processing engine is operable to simultaneously perform an image processing function on information received from the first image module and the second image module (More than one sensor image can be transmitted simultaneously, **Figure 19 and Column 13, Lines 13-28 of Monroe)**. It would have been obvious and well*

known to one of ordinary skill in the art at the time of the invention to perform simultaneous processing on the first and second images from the first and second image modules, because this is an accurate and well known method of generating one image from multiple image sensors, ***Column 13, Lines 20-23 of Monroe****.*

Regarding ***Claim 19****, Chen et al. and Monroe do not disclose the system of claim 11, wherein the first image module comprises an optical zoom lens with autofocus. Official notice is taken by the examiner stating that it would have been obvious and well known at the time of the invention to have a lens that performed optical zoom with auto-focus. Having an optical zoom would have been better and more powerful than having a digital zoom and having the lens perform an auto-focus function would have saved the user the time and effort of manually focusing in on a scene to be imaged.*

Regarding claim 19, Official Notice was taken in the most recent Office Action regarding having a lens that performs optical zoom with auto-focus. The Examiner's conclusion of common knowledge in the art is now taken to be admitted prior art because Applicant has failed to traverse the Examiner's assertion of Official Notice in reply to the Office Action in which the common knowledge statement was made. Please see MPEP §2144.03.

*Regarding **Claim 21**, Chen et al. and Monroe disclose the system of claim 11, wherein the first image information represents a first view of a scene and the second image information represents a second view of the scene and wherein at least a portion of the first information represents a portion of the scene captured in the second view **(Column 9, Lines 39 et seq. of Chen et al.)**.*

*With regard to **Claim 43**, Chen et al. and Monroe disclose the image capturing system of claim 11, wherein the first image module has a first depth of focus (The object to be imaged is captured at different depths of focus. When in the first depth, say A or Z1, a first image sensor will capture the image. It should be noted that the second image sensor will also capture an image at this depth, but this does not affect how it reads on the claim, **Figures 4-5B of Chen et al.)**, wherein the second image module has a second depth of focus (When a second depth of focus (Z2) is honed in on, the second lens (along with the first) will capture a second depth of focus different from the first depth of focus (Z1), **Figures 4-5B of Chen et al.; Column 8, Lines 1 et seq. of Chen et al.)**, and wherein the first image module and the second image module are integrated on a single integrated circuit with the processing engine (Integrated circuit chip 299 in **Figure 2 of Chen et al.)**.*

*In regard to **Claim 44**, Chen et al. and Monroe disclose the image capturing system of claim 43, wherein the processing engine (270) evaluates the first image information at the first depth of focus and evaluates the second image information at the*

second depth of focus to determine which of the first image information and the second image information comprises the desired information ***(Column 8, Lines 51-60 of Chen et al.)****.*

3.) **Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) in view of Monroe (US Patent No.: 7023913B1) as applied to claim 11 above and further in view of Foote et al. (US Patent No.: 7015954B1)**

In regard to ***Claim 17****, Chen et al. and Monroe disclose multiple cameras (Figure 2 of Chen et al.) that have different views (Column 9, Lines 39 et seq. of Chen et al.). However, Chen et al. do not explicitly disclose the system of claim 11, wherein the first image module has a resolution and the second module has a different resolution. Foote et al. disclose two different cameras (Ch1 and Ch2 from Figure 10 of Foote et al.). Before merging the images from Ch1 and Ch2, it is taught that the regions from Ch1 corresponding to the regions in Ch2 differ in resolution (the regions are darker in Ch1),* ***Column 11, Lines 41-47 of Foote et al.*** *It would have been obvious to one of ordinary skill in the art at the time of the invention to have one sensor differ in resolution when compared to the other sensor, because each sensor captures a different scene of view and the light falling on each portion of the scene of view could vary.*

Regarding ***Claim 18****, Chen et al. and Monroe do not explicitly disclose that the system of claim 11, wherein the first image module comprises a digital zoom lens. Foote*

et al. disclose that digital zooming of a scene is possible with an array of cameras, ***Column 1, Lines 26-30 of Foote et al.****. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate digital zooming taught by Foote et al. into the imaging system structure disclosed by Chen et al. and Monroe, because digital zooming increases the size of the image to be captured and renders the image easier to view.*

4.) **Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) in view of Monroe (US Patent No.: 7023913B1) as applied to claim 11 above and further in view of Webster (US Patent No.: 6791076B2)**

Chen et al. and Monroe do not teach or explicitly disclose the image capturing system of claim 11, wherein the first image module comprises a lens integrated with the sensor. Webster discloses a lens integrated with an image sensor, ***Column 5, Lines 7-12 of Webster****. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate lens' that were integral with the image sensors disclosed by Chen et al. and Monroe, because it prevents the lens assembly from moving relative to the image sensor and causing defocusing,* ***Column 5, Lines 7-12 of Webster****.*

5.) **Claims 1, 3-4, 6, 8, 23, 25-29, 31 and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2)**

<u>and further in view of Monroe (US Patent No.: 7023913B1) and Webster (US Patent No.: 6791076B2)</u>

*In regard to **Claim 1**, Chen et al. disclose an image capture system (Figure 2, **Column 9, Lines 38 et seq.**) comprising:*

*a processing engine (video processor 270) operable to perform an image processing function (Video processor 270 is capable of performing an image processing function, **Figure 2 and Column 5, Lines 11-14**);*

*a first image sensor lens module comprising a first sensor (210a is an image sensor, **Figure 2 and Column 5, Lines 1 et seq.**), the*

*first image sensor lens module (210a) operable to capture a first view of a scene and to output first information representing the first view (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq.**);*

*a second image sensor lens module (210b) operable to capture a second view of the scene and to output second information representing the second view (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq.**);*

*a selector operable to selectively route at least a portion of scene view information to the processing engine (There is a selector present in the processor 270 that selects groups of pixels from each of the components of images attained by the cameras, **Column 8, Lines 51-59**), the scene view information comprising the first information and the second information **(Column 5, Lines 1 et seq.)**;*

a triggering engine operable to evaluate scene view information to identify which of the first information and second information comprises desired information and causing the selector to select and route the identified desired information to the processing engine. (Processing engine 270 functions as a selector and a triggering engine. Individual image data are transferred from each image sensor, ***Column 5, Lines 36-45****. During the synching of the image signals to generate a final image, there is a selection process present to select from each of the cameras (components) virtual image pixels that have the least amount of blur (desired information),* ***Column 8, Lines 51-60)****; and*

a mounting surface on which the processing engine (270), the first image sensor lens module (210a) and the second image sensor lens module (210b) are secured (The image sensors and processor 270 are mounted on the same integrated circuit chip 299, ***Column 5, Lines 18-20)****.*

However, Chen et al. do not explicitly disclose that individual pixels of the first image module and the second image module are randomly accessible by the processing engine. Monroe (US Patent No.: 7023913B1) teaches of a digital camera system with a plurality of cameras that is capable of collecting more than one image while performing surveillance and monitoring of an area, ***Column 2, Lines 36-49; Figures 16 and 19 of Monroe****. Monroe discloses a MUX 13 that functions as a pixel selector. Inputs from multiple cameras monitoring an area are coupled through separate motion compressors 12a-12n. The MUX is responsive to select an individual camera signal from the image sensor selector (processor 15 is connected to a network that*

*sends it signals to give to the cameras, **Column 14, Lines 63-64 of Monroe**) at the control input (52) to select the pixel streams from the image sensors 10a-10n that only correspond to the pixels that are located within the target area of the object being tracked, **Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe**. Pixels outside the view of the object being tracked are avoided as can be seen from **Figure 16 of Monroe)**. Only the compressed pixels that fall within the target view are sent to the MUX 13 and then sent to the processor 15 for processing. Areas and pixels that are not concerned with the target being tracked will not be sent to the processor, **Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe)**. The images and selected pixels are random since the object being tracked is never at the same location. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to incorporate the function of selecting individual pixels of the first and second image modules and enabling them to be randomly accessible by the processing engine as disclosed Monroe into the teachings of Chen et al., because this significantly reduces the amount of visual data to only the data that's important while preserving quality and increasing processing speed, **Column 3, Lines 12-17 and Lines 57-65 of Monroe**.*

*Although Chen et al. and Monroe disclose the different image sensors, the references do not teach or explicitly disclose that there are lenses integral with the image sensors. Webster discloses a lens integrated with an image sensor, **Column 5, Lines 7-12 of Webster**. It would have been obvious to one of ordinary skill in the art at*

the time of the invention to incorporate lens' that were integral with the image sensors disclosed by Chen et al. and Monroe, because prevents the lens assembly from moving relative to the image sensor and causing defocusing, ***Column 5, Lines 7-12 of Webster****.*

Regarding ***Claim 3****, Chen et al., Monroe and Webster disclose the system of claim 1, further comprising:*

a third image sensor lens module (210c in Figure 2 of Chen et al.) operable to capture a third view of the scene (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, ***Figure 2 and Column 5, Lines 1 et seq. of Chen et al.)****; and*

an integrated circuit comprising the first image sensor lens module, the second image sensor lens module, the third image sensor lens module and the processing engine (The image sensors and processor 270 are mounted on the same integrated circuit chip 299, ***Column 5, Lines 18-20 of Chen et al.)****.*

Regarding ***Claim 4****, Chen et al., Monroe and Webster disclose the system of claim 1, wherein the first and second image sensor lens modules are adjustably secured to the mounting surface. Webster discloses that the lens can be readily adjusted relative to the image sensor by rotating a lens support (Abstract of Webster). It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to have the lens' adjustably secured with the mounting surface, because*

this readily allows focusing of radiation on the active area of the image sensor, ***Column 4, Lines 64 et seq. of Webster.***

In regard to ***Claim 6****, Chen et al., Monroe and Webster disclose the system of claim 1, further comprising a microphone assembly communicatively coupled to the processing engine to provide audio input* ***(****Microphone 28 in* ***Figure 1 of Monroe).*** *It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to provide audio output to go along with the capturing of images, because the audio signal can be used as a triggering event for activating the camera system into a transmission mode and/or alerting a server or monitoring station* ***(Column 8, Lines 40-45)*** *which can be useful in the event of an intrusion during the surveillance of an area.*

Regarding ***Claim 8****, Chen et al., Monroe and Webster disclose the system of claim 1, wherein the triggering engine is further operable to signal the selector to route the second information (pixel information from a second component) to the processing engine in response to a determination that the second view should capture scene activity* ***(****The MUX is responsive to select an individual camera signal from the image sensor selector (processor 15 is connected to a network that sends it signals to give to the cameras,* ***Column 14, Lines 63-64 of Monroe)*** *at the control input (52) to select the pixel streams from the image sensors 10a-10n that only correspond to the pixels that are located within the target area of the object being tracked,* ***Figures 16 and 19;***

Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe*. Pixels outside the view of the object being tracked are avoided as can be seen from* ***Figure 16 of Monroe)****. Only the compressed pixels that fall within the target view are sent to the MUX 13 and then sent to the processor 15 for processing. Areas and pixels that are not concerned with the target being tracked will not be sent to the processor,* ***Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe)****.*

With regard to ***Claim 23****, Chen et al. disclose an image capturing method comprising:*

correlating a plurality of digital image sensors with different views of a scene wherein at least one of the plurality of digital image sensors comprise a lens ***(****Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270,* ***Figure 2 and Column 5, Lines 1 et seq., Column 9, Lines 39 et seq.)****,*

receiving first information that represents a first view of the scene obtained from a first one of the plurality of digital image sensors ***(****210a is used to capture a first view of a scene,* ***Figure 2)****;*

receiving second information that represents a second view of a scene obtained from a second one of the plurality of digital image sensors ***(****210b is used to capture a second view of a scene,* ***Figure 2)****;*

determining, by a processing engine (270), between the first information and the second information which of the first information and the second information comprises

*a desired portion of the scene (Individual image data are transferred from each image sensor, **Column 5, Lines 36-45**. During the synching of the image signals to generate a final image, there is a selection process present to select from each of the cameras (components) virtual image pixels that have the least amount of blur (desired information), **Column 8, Lines 51-60)**; and*

*selecting the determined desired portion of the scene to be delivered to the processing engine(The video processor 270 generates the final image from the plurality of virtual images attained using desired virtual pixels from each component/camera, **Column 8, Lines 1 et seq. of Chen et al.)**.*

*However, Chen et al. do not explicitly disclose that individual pixels of the first image module and the second image module are randomly accessible by the processing engine. Monroe (US Patent No.: 7023913B1) teaches of a digital camera system with a plurality of cameras that is capable of collecting more than one image while performing surveillance and monitoring of an area, **Column 2, Lines 36-49; Figures 16 and 19 of Monroe**. Monroe discloses a MUX 13 that functions as a pixel selector. Inputs from multiple cameras monitoring an area are coupled through separate motion compressors 12a-12n. The MUX is responsive to select an individual camera signal from the image sensor selector (processor 15 is connected to a network that sends it signals to give to the cameras, **Column 14, Lines 63-64 of Monroe**) at the control input (52) to select the pixel streams from the image sensors 10a-10n that only correspond to the pixels that are located within the target area of the object being tracked, **Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of***

Monroe. *Pixels outside the view of the object being tracked are avoided as can be seen from* ***Figure 16 of Monroe)***. *Only the compressed pixels that fall within the target view are sent to the MUX 13 and then sent to the processor 15 for processing. Areas and pixels that are not concerned with the target being tracked will not be sent to the processor,* ***Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe)***. *The images and selected pixels are random since the object being tracked is never at the same location. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to incorporate the function of selecting individual pixels of the first and second image modules and enabling them to be randomly accessible by the processing engine as disclosed Monroe into the teachings of Chen et al., because this significantly reduces the amount of visual data to only the data that's important while preserving quality and increasing processing speed,* ***Column 3, Lines 12-17 and Lines 57-65 of Monroe***.

Although Chen et al. and Monroe disclose the different image sensors, the reference does not teach or explicitly disclose that there are lenses integral with the image sensors. Webster discloses a lens integrated with an image sensor, ***Column 5, Lines 7-12 of Webster***. *It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate lens' that were integral with the image sensors disclosed by Chen et al. and Monroe , because prevents the lens assembly from moving relative to the image sensor and causing defocusing,* ***Column 5, Lines 7-12 of Webster***.

*In regard to **Claim 25**, Chen et al., Monroe and Webster disclose the method of claim 23, further comprising performing an image signal processing function on the first information (Video processor 270 is capable of performing an image processing function, **Figure 2 and Column 5, Lines 11-14 of Chen et al.**).*

*In regard to **Claim 26**, Chen et al., Monroe and Webster disclose the method of claim 23, further comprising performing an image signal processing function on the first information (Video processor 270 is capable of performing an image processing function, **Figure 2 and Column 5, Lines 11-14 of Chen et al.**).*

*Chen et al., Monroe and Webster also disclose initiating presentation of the information on a display after performing the image signal processing function **(Figure 16 of Monroe)**. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to display the information after performing the image signal processing function, because this would enable a user to view the captured and synthesized images.*

*Regarding **Claim 27**, Chen et al., Monroe and Webster disclose the method of claim 23, further comprising:*

determining that the second view of the scene comprises another desired portion of the scene (The second view of the scene can be captured by image capturing

device 210b and comprises another portion of the scene, ***Column 5, Lines 1 et seq.; Column 9, Lines 39 et seq. of Chen et al.);*** *and*

allowing the second information to progress to the processing engine after the first information is delivered to the processing engine ***(Column 8, Lines 51-59; Column 9, Lines 39 et seq. of Chen et al.).***

With regard to ***Claim 28****, Chen et al., Monroe and Webster disclose the method of claim 23, further comprising:*

correlating the first view to a first image sensor of the plurality of image sensors ***(Figures 16 and 19 of Monroe)*** *and the*

second view to a second image sensor of the plurality of image sensors ***(Figures 16 and 19 of Monroe);*** *and*

receiving a directional identification signal indicating that the first view contains a desired scene activity ***(Column 12, Lines 44-65 and Column 13, Lines 13-28 of Monroe).***

Regarding ***Claim 29****, Chen et al., Monroe and Webster disclose the method of claim 23, further comprising:*

performing an image signal processing function on the first information ***(Figures 1, 16 and 19 of Monroe);*** *and*

outputting post processed image signal information ***(Figures 1, 16 and 19 of Monroe).***

*In regard to **Claim 31**, Chen et al., Monroe and Webster disclose the method of claim 29 further comprising streaming the post processed image signal information (The video images captured by Monroe are streamed when displayed).*

*Regarding **Claim 35**, Chen et al., Monroe and Webster disclose the image capture system of claim 1, wherein the first image sensor lens module does not include a computer readable memory (Figure 2 of Chen et al. shows no memory present on the lens modules).*

*In regard to **Claim 36**, Chen et al., Monroe and Webster disclose the image capture system of claim 1, wherein there is no optical component spatially situated between the first lens and first sensor (Webster discloses a lens integrated with an image sensor, **Column 5, Lines 7-12 of Webster**).*

*With regard to **Claim 37**, Chen et al., Monroe and Webster disclose the image capturing method of claim 23, wherein none of the plurality of image sensors includes a computer readable memory (Figure 2 of Chen et al. shows no memory present on the lens modules).*

*Regarding **Claim 38**, Chen et al., Monroe and Webster disclose the image capturing method of claim 23, wherein an integrated circuit comprises the plurality of*

digital image sensors (The image sensors and processor 270 are mounted on the same integrated circuit chip 299, ***Column 5, Lines 18-20 of Chen et al.****).*

In regard to ***Claim 39****, Chen et al., Monroe and Webster disclose the image capture system of claim 1, wherein the first lens of the first image sensor lens module has a first depth of focus (The object to be imaged is captured at different depths of focus. When in the first depth, say A or Z1, a first image sensor will capture the image. It should be noted that the second image sensor will also capture an image at this depth, but this does not affect how it reads on the claim,* ***Figures 4-5B of Chen et al.****), wherein the second lens of the second image sensor lens module has a second depth of focus different from the first depth of focus (When a second depth of focus (Z2) is honed in on, the second lens (along with the first) will capture a second depth of focus different from the first depth of focus (Z1),* ***Figures 4-5B of Chen et al.; Column 8, Lines 1 et seq. of Chen et al.****), and wherein the first image sensor lens module and the second image sensor lens module are integrated on an integrated circuit with the processing engine (Integrated circuit chip 299 in* ***Figure 2 of Chen et al.****).*

Regarding ***Claim 40,*** *Chen et al., Monroe and Webster disclose the image capture system of claim 39, wherein the triggering engine (there is a triggering engine present in video processor 270 of Chen et al.) is operable to evaluate scene view information to identify which of the first information and second information comprises desired information by evaluating the first information at the first depth of focus and*

evaluating the second information at the second depth of focus ***(Column 8, Lines 51-60 of Chen et al.)****.*

6.) **Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2), Monroe (US Patent No.: 7023913B1) and Webster (US Patent No.: 6791076B2) as applied to claims 1 and 8 above and further in view of Glassman et al. (US Patent No.: 5920337)**

With regard to ***Claim 2****, Chen et al., Monroe and Webster disclose the system of claim 1, further comprising a support having an exterior surface that comprises the mounting surface as disclosed above in claim 1. However, Chen et al., Monroe and Webster do not disclose that the support has a generally spherical geometry. Glassman et al. teach of multiple sensors on a mounting surface (60 which is fabricated on an IC in Figure 10 of Glassman et al.) that has a generally spherical geometry (Column 10, Line 63 to Column 11; Line 3 and Figure 10 of Glassman et al.). It would have been obvious and well-known to one of ordinary skill in the art to incorporate a spherical shaped mounting surface into the design disclosed by Chen et al., Monroe and Webster, because this enables the system to obtain a three hundred and sixty degree panoramic view of a scene to be imaged,* ***Column 2, Lines 58 to 59 of Glassman et al.****.*

In regard to ***Claim 9****, Chen et al., Monroe and Webster et al. disclose multiple cameras (Figure 2 of Chen et al.) capable of capturing different images. Chen et al. also*

disclose an interface operable to communicatively couple an output to an external computing system ***(Figures 1-2 and Column 4, Line 32 to Column 5, Line 58 of Chen et al.)****.*

However, Chen et al., Monroe and Webster do not explicitly disclose the system of claim 8 further comprising: a support having an exterior surface that comprises the mounting surface, the support having a geometry that facilitates differing orientations of the first and the second image sensor lens modules; and an interface operable to communicatively couple an output of the processing engine to an external computing system.

Glassman et al. teach of multiple sensors on a mounting surface (60 which is fabricated on an IC in Figure 10 of Glassman et al.) that has a generally spherical geometry (Column 10, Line 63 to Column 11; Line 3 and Figure 10 of Glassman et al.). The system has a support having an exterior surface that comprises the mounting surface, the support having a geometry that facilitates differing orientations of the first and the second image sensor lens modules (Figure 10 of Glassman et al. show that the support has a geometry that facilitates differing orientations of the image sensor modules); and an interface operable to communicatively couple an output of the processing engine to an external computing system (Processed images can be sent to a computer, ***Column 4, Lines 62-63 of Glassman et al.)****.*

It would have been obvious and well-known to one of ordinary skill in the art to incorporate a spherical shaped mounting surface into the design disclosed by Chen et al. and Webster, because this enables the system to obtain a three hundred and sixty

degree panoramic view of a scene to be imaged, ***Column 2, Lines 58 to 59 of Glassman et al.*** *It would have further been obvious to couple an output of the processing engine to an external computing system, because this would have enabled the freeing up of space in the camera and increasing its present memory capacity.*

7.) **<u>Claims 41-42 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2), Monroe (US Patent No.: 7023913B1) and Webster (US Patent No.: 6791076B2) as applied to claims 1 and 23 above and further in view of Foote et al. (US Patent No.: 7015954B1)</u>**

In regard to ***Claim 41****, Chen et al., Monroe and Webster do not explicitly disclose the image capture system of claim 1, wherein the processing engine performs a Pan, Tilt and Zoom operation on the identified desired information. Foote et al. disclose panning, tilting and zooming of an array of cameras,* ***Column 1, Lines 19-20 and 55-62 of Foote et al.****. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to enable the multiple cameras disclosed by Chen et al., Monroe and Webster to be capable of panning, tilting and zooming in on desired information, because this increases the field of view of the cameras while enabling the area of interest to be more visible to a user.*

With regard to ***Claim 42****, Chen et al., Monroe and Webster do not explicitly disclose the image capture system of claim 1, wherein the processing engine performs a digital magnification by interpolating between pixels in a center of the identified*

desired information. Foote et al. disclose that digital zooming of a scene is possible with an array of cameras, ***Column 1, Lines 26-30 of Foote et al.****. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to incorporate digital zooming taught by Foote et al. into the teachings disclosed by Chen et al., Monroe and Webster, because digital zooming increases the size of the image to be captured and renders the image easier to view.*

Regarding ***Claim 45****, Chen et al., Monroe and Webster do not explicitly disclose the image capturing method of claim 23, wherein selecting between the first information and the second information comprises performing a digital panning operation on the first information and on the second information. Foote et al. disclose panning, tilting and zooming of an array of cameras,* ***Column 1, Lines 19-20 and 55-62 of Foote et al.****. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to enable the multiple cameras disclosed by Chen et al., Monroe and Webster to be capable of panning, tilting and zooming in on desired information, because this increases the field of view of the cameras while enabling the area of interest to be more visible to a user.*

In regard to ***Claim 46****, Chen et al., Monroe and Webster do not explicitly disclose the image capturing method of claim 23, wherein selecting between the first information and the second information comprises performing a digital tilt operation on the first information and on the second information. Foote et al. disclose panning, tilting and zooming of an array of cameras,* ***Column 1, Lines 19-20 and 55-62 of Foote et al.****. It would have been obvious and well-known to one of ordinary skill in the art at the time of*

the invention to enable the multiple cameras disclosed by Chen et al., Monroe and Webster to be capable of panning, tilting and zooming in on desired information, because this increases the field of view of the cameras while enabling the area of interest to be more visible to a user.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRITHAM PRABHAKHER whose telephone number is (571)270-1128. The examiner can normally be reached on M-F (7:30-5:00) Alt Friday's Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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